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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/521,720	07/25/2005	Rainer Pietig	DE 020181	2369

24737 7590 09/21/2006

PHILIPS INTELLECTUAL PROPERTY & STANDARDS
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EXAMINER

MOE, AUNG SOE

ART UNIT

PAPER NUMBER

2618

DATE MAILED: 09/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/521,720

Applicant(s)

PIETIG ET AL.

Examiner

Aung S. Moe

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) 1-4 is/are allowed.
- 6) ☒ Claim(s) 5-9 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 January 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Specification

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

1. The disclosure is objected to because of the following informalities: the disclosure fails to provide the section heading, such as "BACKGROUND OF THE INVENTION", "BRIEF SUMMARY OF THE INVENTION", "BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S)", "DETAILED DESCRIPTION OF THE INVENTION", which normally include in the specification of a utility application.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. Claims 5-8 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 5-8 are considered indefinite as being in improper form because a multiple dependent claim cannot depend from any other multiple dependent claim. See MPEP § 608.01(n). Accordingly, the claims 5-8 are not been further treated on the merits.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims rejected under 35 U.S.C. 102(e) as being anticipated by Bouisse et al. (U.S. 6,414,562).

Regarding claim 9, Bouisse '562 discloses a method for dynamic impedance matching between a power amplifier (i.e., see Figs. 1 and 2, the elements 12 and 112) and an antenna (19/119), characterized in that the magnitude and phase of both the signal traveling (i.e., see col. 4, lines 45+; see Figs. 1 and 2, the elements 55, 57, 60 and 150) to the antenna (19/119) and the entire signal reflected (i.e., see Figs. 1, the signal 54) at the antenna (19) are evaluated, in order to determine the present impedance value (i.e., as shown in Figs. 1 and 2, the impedance matching device determines the present impedance value) of the antenna (19); and a controllable matching network (10/20) having active and passive components (i.e., as shown in Figs. 1 and 2, the active component such as variable capacitors 22, 34, 26, 134 and 126 respectively corrected by the control circuit 80/180, and the passive components such as non-controllable capacitors 42, 44, 46, 144, 146 and 148 respectively) is corrected in accordance with the determined impedance value (i.e., see col. 3, lines 15+, col. 4, lines 10+ and col. 6, lines 30+) of the antenna (19/119).

Allowable Subject Matter

5. The following is an examiner's statement of reasons for allowance: Claims 1-4 are considered allowable over the prior art of record, since prior art of record fails to show or fairly suggests a device for dynamic impedance matching between a power amplifier and an antenna, having *a circulator (210)*, which routes a signal received from the power amplifier (10) at a first port via a second port to the antenna (30) and diverts the signal reflected at the antenna (30) and received at the second port through a third port; and a matching network (24, 240, 250); and further characterized in that a directional coupler (200) diverts *a proportion of the signal traveling from the power amplifier (10) to the antenna (30), from which the magnitude and phase of the signal may be derived, to a signal detector (220)*; and *the circulator (210) routes the entire signal reflected at the antenna (30) into the signal detector (220)*; wherein the signal detector (220) passes the magnitude and phase of both the signal traveling to the antenna (30) and the signal reflected at the antenna (30) to a controller (230), which evaluates the information received from the signal detector (220) in order to determine the present impedance value of the antenna (30) and to correct the controllable matching network (24, 240, 250) containing active and passive components in accordance with the determined impedance value of the antenna (30) as substantially described and connected in independent claim.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US 20020086643A1; Noted that Leipala '643 references is closes to the present claimed invention, however, Leipala '643 teaches away from the present claimed invention by only using Circular, rather than using both Directional Coupler 200 and the Circular 210, and further fails to show where a portion of input signal traveling from the power amplifier 10 to the antenna 30 is directed by the directional coupler 200.

US006414562B1; Noted that although Bouisse '562 teaches the use of magnitude and phase of the transmit/reflect signals in the impedance matching circuit, Bouisse '562 does not explicitly show the use of both using both Directional Coupler 200 and the Circular 210.

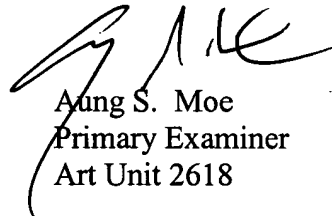
US007013114B2 US006329880B2 US 20050264352A1 US 20050043001A9
US 20020098611A1 US006597252B1 US 20050093624A1

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aung S. Moe whose telephone number is 571-272-7314. The examiner can normally be reached on Flex.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward F. Urban can be reached on 571-272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Aung S. Moe
Primary Examiner
Art Unit 2618

A. Moe
September 17, 2006